

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

1-46. (Canceled)

47. (New) A system for automatically providing an administrator of a computing environment with diagnostic data and instructions relevant to troubleshooting a selected problem event occurring in the computing environment, wherein said system comprises:

a problem event processor operable to cause a plurality of problem events to be displayed, receive a problem event selection identifying one of the plurality of problem events as the selected problem event, and determine which of a plurality of troubleshooting types corresponds to said selected problem event;

a troubleshooting profile manager operable to select a troubleshooting profile associated with said troubleshooting type of said selected problem event; and

a troubleshooting portal view manager operable to execute said troubleshooting profile and one or more troubleshooting data miner modules referenced in said troubleshooting profile, and to cause said diagnostic data and said instructions to be displayed; wherein when executed said one or more troubleshooting data miner modules generate or cause generation of said diagnostic data and said instructions.

48. (New) The system of claim 47, wherein upon selection of said selected problem event, said system automatically retrieves from relevant computing environment entities said diagnostic data.

49. (New) The system of claim 47, wherein said selected problem event is one of a plurality of problem events generated by at least one domain manager in the computing environment, each said at least one domain manager managing an entity in the computing environment.

50. (New) The system of claim 47, wherein said data miner modules comprise a first data miner module operable to generate or cause the generation of said instructions, and wherein said troubleshooting portal view manager is operable to display said instructions produced by execution of said first data miner module.

51. (New) The system of claim 49, wherein said computing environment includes a network system, and wherein said at least one domain manager comprises one or more of the group consisting of:

- network managers configured to manage individual and collections of networks;
- software application managers configured to manage software applications executing on a node or server of the computing environment;
- database managers configured to manage databases executing on a node or server of the network system; and
- server managers configured to assist a network administrator in managing operations of each server in a network.

52. (New) The system of claim 47, wherein said problem event processor is further operable to normalize said plurality of problem events for display.

53. (New) The system of claim 49, wherein said diagnostic data is displayed in accordance with viewpoint layout information included in said troubleshooting profile.

54. (New) The system of claim 49, wherein said plurality of problem events comprise:

- problem events automatically-generated by said at least one domain manager; and
- problem events identified by a user of the computing environment and manually entered into said system.

55. (New) The system of claim 47, wherein said display of said diagnostic data can be modified by administrator inputs specifying a change in said diagnostic data, and wherein said troubleshooting portal view manager is further operable to access said domain managers as necessary to obtain or cause the generation of said modified diagnostic data.

56. (New) The system of claim 47, wherein said problem event processor is further operable to generate event data associated with said selected problem event, said event data comprising:

an original event ID generated by a domain manager that manages an entity of the computing device that caused said problem event to occur;

said troubleshooting type of said selected problem event; and

information pertaining to said entity that caused the generation of said problem event.

57. (New) The system of claim 47, wherein said problem event processor comprises:

an event consolidator operable to receive problem events from domain managers, said problem events generated by different domain managers having different formats, said event consolidator operable to process said problem events and, in response to each received problem event, to generate a normalized event identifier having a standard format; and

an event type determinator operable to categorize received problem events as being one of a plurality of troubleshooting types, each said troubleshooting type indicating diagnostic data and troubleshooting procedures likely to be required to be performed or analyzed to successfully troubleshoot each said problem event, and to generate said troubleshooting type for said selected problem event.

58. (New) The system of claim 47, wherein said problem event processor comprises:

an event consolidator operable to receive problem events from domain managers and that generate a representation of the selected problem event, said representation including said troubleshooting type.

59. (New) The system of claim 56, wherein said troubleshooting profile manager comprises:

a repository of troubleshooting profiles each associated with a particular troubleshooting type of problem event;

repository of mapping data that associates each said troubleshooting type and one of said troubleshooting profiles;

a profile selector that, based on said troubleshooting type of said selected problem event, is operable to retrieve from said repository one of said troubleshooting profiles that is to be implemented for said selected problem event; and

a profile conditioner operable to populate said troubleshooting profile with at least a portion of said event data.

60. (New) The system of claim 47, wherein said troubleshooting profile is an extensible, executable software program that is operable to invoke a predetermined combination of at least one of said one or more data miners that generate or cause the generation of said diagnostic data and instructions to assist the administrator in diagnosing and correcting a cause of said selected problem event.

61. (New) The system of claim 59, wherein said repository of mapping data is a look-up-table.

62. (New) The system of claim 59, wherein said troubleshooting profile manager further comprises:

a troubleshooting profile editor operable to enable the administrator to modify, add or delete contents of said mapping data and said repository of said troubleshooting profiles.

63. (New) The system of claim 59, wherein each said troubleshooting profile comprises:

portal view layout information for use by said troubleshooting portal view manager to generate a TS view window;

one or more references to said one or more troubleshooting data miner modules that are to be utilized to obtain said diagnostic data and instructions relevant to troubleshooting said selected problem event; and

troubleshooting data miner module configuration information parameters that provide requisite information to said one or more referenced troubleshooting data miner modules.

64. (New) The system of claim 47, wherein said troubleshooting portal view manager comprises:

- a database of said one or more troubleshooting data miner modules;
- a data miner manager operable to invoke at least one of said one or more troubleshooting data miner modules referenced in said troubleshooting profile; and
- a portal view window generator operable to display said diagnostic data and said troubleshooting instructions generated by said referenced data miner modules in accordance with portal view layout information contained within said troubleshooting profile.

65. (New) The system of claim 64, wherein said troubleshooting data miner modules are executable software programs that, when executed, access, call, query, or otherwise interface with external entities to retrieve or cause the generation of diagnostic data and troubleshooting instructions.

66. (New) The system of claim 47, wherein said one or more troubleshooting data miner modules comprise one or more of the group consisting of:

- software programs operable to mine data from said at least one domain manager;
- software programs operable to access knowledge databases provided by a customer of the computing environment; and
- software programs operable to call or invoke system utilities and tools that, when executed, generate said diagnostic data.

67. (New) The system of claim 47, wherein said computing environment comprises a distributed network system.

68. (New) An apparatus that displays instructions and diagnostic data relevant to the diagnosis of a particular problem event which has occurred in a computing environment, wherein said instructions and diagnostic data are generated automatically and without network administrator action subsequent to identifying said particular problem event; wherein the apparatus comprises:

a database of troubleshooting data miner modules each configured to generate or cause the generation of one or more of either instructions and diagnostic data;

a repository of troubleshooting profiles each referencing one or more data miner modules;

a memory device configured to store data that associates problem event types with troubleshooting profiles; and

a troubleshooting software module operable to display problem events received from domain managers, to execute a troubleshooting profile retrieved from said repository of troubleshooting profiles that is associated with said particular problem event to cause invocation of said one or more referenced troubleshooting data miner modules, and to display said diagnostic data and said instructions generated or caused to be generated by said one or more referenced troubleshooting data miner modules.

69. (New) A method for displaying information relevant to a particular problem event which has occurred in a computing environment, comprising:

providing a database of troubleshooting data miner modules each operable to generate or cause the generation of diagnostic data or instructions related to a particular network entity or function;

generating a database of troubleshooting profiles each referencing a predetermined one or more troubleshooting data miner modules to display diagnostic data and instructions pertinent to a particular type of problem event;

determining which type of problem event corresponds to said particular problem event;

retrieving from said database of troubleshooting profiles a troubleshooting profile associated with said determined type of problem event; and

invoking said retrieved troubleshooting profile and said one or more troubleshooting data miner modules referenced therein to generate or cause to be generated diagnostic data and instruction relevant to the particular problem event; and

displaying said instructions and diagnostic data on a display device.

70. (New) The method of claim 69, further comprising:

receiving a plurality of problem events each generated by a domain manager residing in the computing environment;

storing said received problem events in a repository of problem events that have occurred in the computing environment;

displaying a representation of said plurality of stored problem events in an interactive display; and

receiving an indication that one of the plurality of problem events is said particular problem event.

71. (New) A computer readable medium comprising:

a database of troubleshooting data miner modules each configured to generate or cause generation of at least one of either troubleshooting instructions and diagnostic data;

a repository of troubleshooting profiles each referencing at least one of said data miner modules to be used in connection with troubleshooting a particular type of problem event; and

a memory device configured to store data that associates each problem event type with one of the troubleshooting profiles; and

computer program logic operable to enable a processor of a computer system to display problem events received from domain managers in a computing environment, determine the type of a problem event selected by a user, retrieve a troubleshooting profile from said repository that is associated with said type, execute said retrieved troubleshooting profile causing the invocation of said referenced troubleshooting data miner modules, and display diagnostic data and troubleshooting instructions generated or caused to be generated by said referenced troubleshooting data miner modules.